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Enterprise Applications Testing – Leverage the Power of Objectivity

For Enterprise Systems Project Organizations, a well executed Quality Assurance (specifically testing) function acts as a force-multiplier, the most effective way to win end-user confidence lock, stock and barrel. Increasingly, enterprise testing has become harder to execute not for lack of tools, but due to the complexities of processes and transaction data density.

One of the significant challenges however is how to operationalise an effective testing function that supports your immediate as well as long-term release / maintenance plans.

There are three key components to testing

- a) Usability
- b) Performance and
- c) Functionality.

Tools are available to address each of these components; however, organizations need to use these based on their requirements.

Usability Testing - Measures how easily customers can use your enterprise application. This is helpful when your enterprise applications are web-based and you are prototyping an application for deployment. It is helpful, if your organization has user interface / usability guidelines defined, else it would be good to define one.

Performance Testing – If your application is transaction intensive then over time, application performance will tend to drag. Ensuing that there is continuous performance assessment and application architecture is being redesigned to accommodate newer performance needs is a good practice. Performance testing tools (such as LoadRunner) allow performance testing to be simplified. The challenge however is to utilize the testing resources effectively to generate the maximum benefits.

Here it is important to view each process as an assembly line with the output being the successful completion of a transaction and throughput time determining application efficiency. An automated tool is immensely helpful here. However, when defining your performance-testing plan, here are four things we recommend –

1. List your critical application processes / transactions
2. Define performance measures/ organizational benchmarks for these transactions /application processes
3. Identify bottleneck activities for each of these processes / transaction
4. Re-Engineer / Re-Architect to remove bottlenecks.

Functional Testing – This is the most critical component of all testing action plans. In addition, the number of automated test tools abound that promise a quick and easy testing process. However, given the intricacies of most application deployments including numerous customizations, we recommend that organizations explore alternatives prior to purchasing one. An independent and objective functionality testing team that deeply understands the intricacies of your application processes would be helpful in the long term as they provide both accountability and flexibility. Before stepping into executing a functional testing plan, however, it would be helpful to check your own organizational readiness.

1. Are your critical enterprise business processes defined and mapped on to application processes / functionalities at a detailed level?
2. Are all your development / customization efforts tied into requirements that are mapped to the processes defined above?



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3. Do your functional specification documents (or requirements design) sufficiently capture the change in Business Process / Application Process (es) because of the proposed development?

For both a) Functional (Unit and Regression Testing) and b) Performance Testing, the

critical success factor is having the Testing Team led by domain/application specialist who understands the application processes as well as the underlying database schema. The application specialist ensures that there was no gap in communication, that all the Data specifications are captured as needed and the preconditions and configuration settings that were needed for the scripts is defined.

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Your organizational budgets to focus on core architecture tasks.

To find out about how Cognizant can help improve your enterprise testing, please mail us at inquiry@cognizant.com

Cognizant's ERP practice is mature and fast growing. Having implemented ERP systems across a wide range of vertical industry sectors, we have developed core competencies with the leading ERP applications, including PeopleSoft, JD Edwards and Oracle. Furthermore, with our experience in related application areas, ranging from CRM to business intelligence, Supply Chain Management, Human Resource Management, Financials, and e-business, we can help your organization derive maximum value from your ERP projects.

In collaboration with our comprehensive and growing eTesting practice, Cognizant helps organizations leverage the power of objectivity at a much lower cost – allowing